

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A process for producing coatings of iridium oxide, comprising the following steps:
 - a) applying colloidal IrO_x where x is from 1 to 2 to a surface,
 - b) drying the coated surface, and
 - c) firing the surface at a temperature of from 300 to 1000°C,
steps a to c being repeatable until ~~the~~ a desired layer thickness has been obtained.
2. (Currently Amended) The process as claimed in claim 1, ~~characterized in that~~ wherein the colloidal IrO_x where x is from 1 to 2 is obtained by admixing an aqueous, alcoholic and/or aqueous alcoholic solution of an Ir salt, optionally with stirring, with a Brønsted base.
3. (Currently Amended) The process as claimed in claim + ~~2~~, ~~characterized in that~~ wherein the Brønsted base used comprises ~~an~~ alkali metal hydroxides, especially NaOH or KOH .
4. (Currently Amended) The process as claimed in claim 3, ~~characterized in that~~ wherein an aqueous solution of the Ir salt is used, and the aqueous solution of the Ir salt is adjusted to a pH of > 12, preferably ≥ 13.
5. (Currently Amended) The process as claimed in ~~one of claims~~ claim 2 to 4, ~~characterized in that~~ wherein the Ir salt is selected from the group consisting of halides, nitrates, sulfates, acetates, acetylacetones, the hydrates of the above and the mixed salts thereof with other metal salts, especially the alkali metal iridium salts, particular preference being given to

~~IrCl₃ • H₂O, IrCl₄ • H₂O, H₂IrCl₆ • H₂O, Na₂IrCl₆ • H₂O, K₂IrCl₆ • H₂O.~~

6. (Currently Amended) The process as claimed in ~~one of claims~~ **claim 1 to 5**, characterized in that **wherein** the surfaces to be coated are **is** selected from **the group consisting of** metal and metal oxide surfaces, in particular from Ti, TiO₂, ZnO, SnO₂ and glass.

7. (Currently Amended) The process as claimed in claim 6, characterized in that **wherein** the surface to be coated is the surface of a Ti electrode, in particular an electrode for the evolution of oxygen and evolution of chlorine or an electrode for the oxidation of organic residues in drinking water.

8. (Currently Amended) Colloidal iridium oxide which has a particle size of ≤ 10 nm, ~~in particular ≤ 3 nm~~.

9. (Currently Amended) A process for preparing colloidal iridium oxide, in which **said process comprising adjusting the pH to > 12 of** an aqueous, alcoholic or aqueous-alcoholic solution of an Ir salt, optionally with stirring, is adjusted to a pH of > 12, preferably ≥ 13, and **subsequently stirring** the resulting mixture is subsequently stirred at a temperature of from 0 to 100°C over a period of from 3 to 72 hours.

10. (New) The process as claimed in claim 3, wherein the alkali metal hydroxide is selected from the group consisting of NaOH and KOH.

11. (New) The process as claimed in claim 4, wherein the aqueous solution of the Ir salt is adjusted to 25 a pH of > 13.

12. (New) The process as claimed in claim 5, wherein the Ir salt is selected from the group consisting of alkali metal-iridium salts.

13. (New) The process as claimed in claim 12, wherein the Ir salt is selected from the group consisting of IrCl₃ • H₂O, IrCl₄ • H₂O, H₂IrCl₆ • H₂O, Na₂IrCl₆ • H₂O, and K₂IrCl₆ • H₂O.

14. (New) The process as claimed in claim 6, wherein the surface is selected from the

group consisting of Ti, TiO₂, ZnO, SnO₂ and glass.

15. (New) The process as claimed in claim 7, wherein the Ti electrode is a Ti electrode for the evolution of oxygen and evolution of chlorine or an electrode for the oxidation of organic residues in drinking water.

16. (New) The colloidal iridium oxide as claimed in claim 8, which has a particle size of ≤ 3 nm.

17. (New) The process as claimed in claim 9, wherein the pH of the solution of the Ir salt is adjusted to a pH ≥ 13 .